

## 1. GENERAL PROVISIONS

### A. Purpose

The purposes of these regulations are to ensure that the quality of waste discharged on land for beneficial uses is reasonably consistent with the protection of the public health and to establish rules and regulations for the engineering, design and operation of water treatment sludge disposal sites and facilities which serve the purposes set forth in C.R.S. 1973, 30-20-109 and 25-1-107 (as amended). Water treatment sludge disposal sites and facilities for which a Certificate of Designation has been issued are exempted from the provisions of these regulations.

These regulations also provide the regulatory framework to allow implementation of the sludge management program fee system pursuant to C.R.S. 1986, 30-20-110.5.

### B. Definitions

As used in these regulations, unless the context otherwise requires:

- (1) "APPLICATION SITE" means all contiguous areas of a user's property intended for sludge applications.
- (2) "APPLY" means to place onto or into the soil till zone.
- (3) "BENEFICIAL USE" means the use of the nutrients and/or moisture in the sludge to act as a soil conditioner or low grade fertilizer for the promotion of vegetative growth on the land.
- (4) "BENEFICIAL USE CERTIFICATION" means the Department's written approval indicating the conformance of a proposed beneficial use of water treatment sludge with the criteria contained in this regulation.
- (5) "BENEFICIAL USE PLAN" means the written application for Department authorization to land apply water treatment sludges.
- (6) "BIOSOLIDS" means the accumulated residual product resulting from a domestic wastewater treatment works. Biosolids does not include grit or screenings from a wastewater treatment works, grease, commercial or industrial sludges, or domestic or industrial septage. Beneficial use of biosolids is regulated under the Colorado Biosolids Regulations.
- (7) "BOARD" means the State Board of Health.
- (8) "CO-APPLICATION" means to application of both biosolids and water treatment sludges to the same beneficial use site. Co-application of biosolids and water treatment sludges is subject to the requirements of the Colorado Biosolids Regulations.
- (9) "DEPARTMENT" means the Colorado Department of Health.
- (10) "FERTILIZER" means any organic or inorganic material that is added to the soil to supply elements essential to plant growth.
- (11) "MUNICIPALITY" means any regional commission, county, metropolitan district, water conservancy district, metropolitan sewage disposal district, service authority, city and county, city, town, Indian tribe or authorized Indian tribal organization, or any two or more of the above which are acting jointly in connection with a sewage treatment facility.

- (12) "PERSON" means an individual, corporation, partnership, association, state, or political subdivision thereof, federal agency, state agency, municipality, or commission.
- (13) "PRODUCER" means a person operating a water treatment facility which generates water treatment sludge. The producer is that person who files a Beneficial Use Plan and in whose name any subsequent Beneficial Use Certification is issued. The producer is thereby responsible for assuring conformance of a proposed beneficial use of water treatment sludge with the criteria contained in this regulation.
- (14) "ROOT CROPS AND LOW GROWING FRUITS AND VEGETABLES" means those crops, the edible portion of which grow below, at, or within one foot of the soil surface.
- (15) "USER" means a person who owns or operates application site.
- (16) "WATER TREATMENT PLANT SLUDGE" or "WATER TREATMENT SLUDGE" means the accumulated solids resulting from the processing of raw water in a treatment plant of a municipality.

#### C. Severability

Each provision of these regulations is severable and intended to be independently valid. Any determination that any provision of these regulations is invalid shall not operate to invalidate the remainder of the regulations.

#### D. Variance

The Department may grant a variance from any provision of these regulations in a particular case, where it determines that the public health benefits which will be created by compliance with the subject provision do not bear a reasonable relationship to the costs required to achieve compliance, and that the granting of a variance will be reasonably consistent with the protection of the public health.

Any person who requests a variance from a provision of these regulations shall have the burden of supplying the Department with that information which demonstrates that conditions exist which warrant the granting of a variance. A request for a variance may be filed simultaneously with the Letter of Intent, or at any other time provided good cause is shown for not having requested the variance at the time the Letter of Intent was submitted. The Department shall grant or deny a variance request within 90 days of receipt thereof. No person shall be considered to have obtained a variance until he has received a written statement from the Department granting the variance. In any such written statement, the Department shall identify the provision of these regulations from which a variance has been granted, and shall prescribe any other requirements which the person receiving the variance must meet, in lieu of the provision from which a variance has been granted. The Department shall prescribe such requirements as are reasonably consistent with the protection of the public health.

All variances granted by the Department in anyone month shall be reported to the Board of Health at its next regular meeting.

#### E. Enforcement

The Department shall enforce these regulations pursuant to C.R.S. 1973, Section 25-1-114 and 30-20-113, -114 as amended.

#### F. References

The attached statement of basis and purpose is incorporated by reference. With respect to material incorporated herein by reference these regulations do not include future amendments to or editions of

such material. Copies of such material may be acquired by contacting the Director, Water Quality Control Division, Colorado Department of Health, 4210 East 11th Avenue, Denver, Colorado 80220.

G. Effective date

These regulations shall take effect on February 19, 1993.

## **2. ADMINISTRATION OF BENEFICIAL USE CERTIFICATIONS**

### **A. Submission of Beneficial Use Plans Prior to Application of Water Treatment Sludge**

No producer shall sell water treatment sludge, distribute water treatment sludge or supply water treatment sludge in any manner to any other person for use at an application site unless:

- (1) The producer has submitted a complete Beneficial Use Plan by certified mail or by personal service to the Department, and a copy of the letter to the local health department authority, regarding that application;
- (2) the producer has obtained permission from the user to enter on the site to perform any monitoring and analysis identified in the Beneficial Use Plan;
- (3) the producer has made available a copy of these regulations to the user;
- (4) the Department has issued a Beneficial Use Certification.

### **B. Content of Beneficial Use Plan**

The Beneficial Use Plan shall contain a legal description of the land to which water treatment sludge is to be applied; the number of pounds of water treatment sludge to be applied per acre; the types of crops to be grown on the land, and the number of acres of each crop; analysis of the water treatment sludge for the parameters identified in Table 1; documentation that the comments of the local health authority have been solicited; the name and address of the producer, the name and address of any contractor, and a copy of the contract, if applicable, the name and address of the user, a detailed monitoring plan and identifying measures which remediate any detrimental impact of the application, and other information deemed by the Department as appropriate to evaluate potential human health and environmental impact of the proposed use.

### **C. Department Review**

Following adoption of these regulations a producer shall be advised by the Department not more than thirty days after receipt of a Beneficial Use Plan by the Department if, and in what respects, the Beneficial Use Plan is incomplete.

### **D. Beneficial Use Certification**

The Department shall either issue or deny the Beneficial Use Certification not more than thirty days after the Department has deemed the Beneficial Use Plan to be complete.

## **3. BENEFICIAL USE OF WATER TREATMENT SLUDGE**

- ### **A. Beneficial use of co-applied water treatment sludge and biosolids shall comply with all applicable requirements of the Colorado Biosolids Regulations, 4.9.0. Co-applied domestic sewage sludge and water treatment plant sludge shall be either mixed prior to application or shall be incorporated following application.**

- B. No person shall apply water treatment plant sludge to land used to grow root crops and low growing fruits and vegetables if such crops are intended for direct human consumption.
- C. No person shall undertake the beneficial use of water treatment plant sludges which exceed 40 picocuries total alpha activity per gram of dry sludge.

#### 4. WATER TREATMENT SLUDGE STORAGE

A. Beneficial Use Certification Required. No person shall store water treatment sludge at an application site unless a Beneficial Use Certification has been issued by the Department for such storage.

#### B. Exemptions

The requirements of this section shall not apply to the following:

- (1) Process components of a water treatment facility and water treatment sludge storage components located at a water treatment facility.
- (2) Components of a solid waste disposal site or facility which has received a Certificate of Designation pursuant to the Solid Wastes Disposal Sites and Facilities Act, C.R.S. 30-20-100.5 § ~., 1973 (as amended).
- (3) Facilities which are intended for the offloading of water treatment sludges from vehicles transporting water treatment sludges to an application site and subsequent loading of water treatment sludges into application equipment, notwithstanding any incidental spillage or placement on the land during transfer. Such facilities shall be bermed or otherwise protected or managed so as to prevent movement of spillage or runoff from the transfer area off of the permitted site.

#### C. Storage Requirements for Water Treatment Sludge

Facilities for the storage of water treatment sludges located at an application site shall be bermed or otherwise protected so as to prevent movement of spillage or runoff from the storage facilities off of the permitted site. Water treatment sludge shall be stored in a manner which will prevent windblown sludge from escaping the storage facility.

#### 5. MONITORING AND REPORTING

#### A. Water Treatment Sludge Monitoring

Analysis of water treatment plant sludges shall be performed on composite samples for the parameters set forth in Table 1. Analyses of water treatment plant sludges shall be performed either annually, or if disposal occurs on a less frequent basis, prior to disposal.

#### B. Additional Monitoring

If the Department has reasonable grounds to believe that a particular water treatment sludge may contain any elements or compounds which could cause a hazard to the public health or to the environment, the Department may require groundwater, soils or plant tissue monitoring and/or the analysis of water treatment sludge for parameters other than those set forth in Table 1, or may require that analyses be performed at a greater frequency than is otherwise required by this section.

TABLE 1 ANALYSES AND REPORTING UNITS<sup>1</sup>

Parameter	Units	Parameter	Units
-----------	-------	-----------	-------

Total Solids	Percent	Total Chromium	mg/kg
pH	Standard Units	Total Copper	mg/kg
Organic-N	Percent	Total Iron	mg/kg
Total Ammonia-N	Percent	Total Lead	mg/kg
Nitrate-N	Percent	Total Mercury	mg/kg
Total Phosphorus	Percent	Total Molybdenum	mg/kg
Total Potassium	Percent	Total Nickel	mg/kg
Total Aluminum	mg/kg <sup>2</sup>	Total Selenium	mg/kg
Total Arsenic	mg/kg	Total Zinc	mg/kg
Total Cadmium	mg/kg	Total Alpha Activity	pCi/g <sup>3</sup>

1 All results expressed in dry weight basis for a composited sample.

2 Milligrams per kilogram.

3 Picocuries per gram.

### C. Reporting

Annually, on or before February 19, each producer shall report to the Department the results of all analyses the producer has performed during the preceding year to meet the requirements of this section, the total amount of water treatment sludge applied during the preceding year and the location at which any water treatment sludge was applied during the preceding year.

## 6. FEES

### A. Establishment of Fees

Pursuant to Section 30-20-110.5, C.R.S. (1986 supp.), the State Board of Health shall establish, and may revise as necessary, a schedule of non-refundable fees to cover the reasonable costs of implementing a program for the beneficial use of sludge. For purposes of this section the term "sludge" is defined to mean water treatment sludge which use is subject to the provisions of this regulation and water treatment sludge and/or biosolids which use is subject to the provisions of the Colorado Biosolids Regulations.

The fee schedule shall be based on program cost projections prepared by the Department and submitted in writing to the Board for review. The Board will conduct a public hearing on any proposed change to the fee structure.

The reasonable costs of implementing and maintaining the program include, but may not be limited to, the following:

- Personal Services - the cost of personnel assigned to implement and maintain the program, i.e., salaries, benefits, etc.
- Operating - the costs associated with travel, laboratory analysis, and capital outlay.
- Program Evaluation - the costs associated with assessment of potential beneficial sludge use technology.

### B. Assessment of Fees and Billing

- (1) A non-refundable fee of one dollar and twenty-four cents per dry ton of sludge shall be assessed the producers whose sludge is used for beneficial purposes as defined in Section 1.B of these regulations.

The Department will notify producers when adjustments are made to the fee schedule and the effective date for implementing the changes.

- (2) Producers shall receive a notice from the Department of the annual fee schedule. This notice shall accompany the Department's Beneficial Use Certification or Notice of Authorization for the Use and Distribution of Biosolids.

- (3) Payment may be prepaid based on the annual projected sludge tonnage or paid based on the actual amount of dry sludge applied.

- a) Prepayment of the annual projected payment must be made within the first quarter (January - March) of the calendar year. Prepayment must be made for an entire year.

Adjustment will be made to the following year's annual projected payment to reflect any overpayment or underpayment of the actual amount due. Adjustments will be based on the actual amount of sludge applied as reported in the annual reports multiplied by the fee in place during the period the sludge is to be applied, or

- b) Payments based on the actual amount of sludge (dryweight basis) applied in the previous reporting period covered in the annual report must be remitted on or before May 19.

- (4) Payment by check shall be made out to the Colorado Department of Health, Sludge Management Program. All such payments received shall be credited to the Sludge Management Program as provided for in C.R.S. 30-20-110.5 (3).

#### C. Enforcement of Fee Payments

- (1) Failure or refusal to make payment for application of domestic sewage sludge to land for beneficial purposes within the time frame specified in Section 6.B of these regulations shall result in suspension and/or revocation of the Beneficial Use Certification or Notice of Authorization for the Use and Distribution of Biosolids.

- (2) Action to suspend or revoke the Beneficial Use Certification or Notice of Authorization for the Use and Distribution of Biosolids shall be taken by the Department if payment is not received following written notice sent by certified mail pursuant to Section 6.C.3. In the event of suspension or revocation of the Beneficial Use Certification or Notice of Authorization for the Use and Distribution of Biosolids, subsequent sludge application shall be subject to all applicable requirements of the State Solid Wastes Disposal Sites and Facilities Act until such time as payment is received and the Beneficial Use Certification or Notice of Authorization for the Use and Distribution of Biosolids is reinstated.

- (3) Formal notification of the suspension or revocation shall be sent to the producer by certified mail. The notice shall state:

- a) the effective date of the suspension or revocation;

- b) the basis for suspension or revocation;

- c) the consequences of applying sludge without the required Beneficial Use Certification or Notice of Authorization for the Use and Distribution of Biosolids.

D. Appeals of Actions on Fees

- (1) All appeal reviews will be conducted by the Board in accordance with Section 24-4-105 of the State Administrative Procedures Act.
- (2) Board action on the appeal is considered final agency action.